

Date: Wed, 2 Mar 94 04:30:37 PST  
From: Ham-Homebrew Mailing List and Newsgroup <ham-homebrew@ucsd.edu>  
Errors-To: Ham-Homebrew-Errors@UCSD.Edu  
Reply-To: Ham-Homebrew@UCSD.Edu  
Precedence: Bulk  
Subject: Ham-Homebrew Digest V94 #47  
To: Ham-Homebrew

Ham-Homebrew Digest                      Wed, 2 Mar 94                      Volume 94 : Issue    47

Today's Topics:

                    50uA Meters - Help from Dayton?  
                            Comments on TAPR-2 board?  
                                    Looking for Lex...  
                    Paralleling Power Diodes ? (2 msgs)  
            Want to obtain a very cheap high gain antenna (2 msgs)

Send Replies or notes for publication to: <Ham-Homebrew@UCSD.Edu>  
Send subscription requests to: <Ham-Homebrew-REQUEST@UCSD.Edu>  
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Homebrew Digest are available  
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-homebrew".

We trust that readers are intelligent enough to realize that all text  
herein consists of personal comments and does not represent the official  
policies or positions of any party. Your mileage may vary. So there.

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Date: Mon, 28 Feb 1994 19:24:39 GMT  
From: ihnp4.ucsd.edu!swrinde!gatech!howland.reston.ans.net!EU.net!sunic!psinntp!  
psinntp!arrl.org!zlau@network.ucsd.edu  
Subject: 50uA Meters - Help from Dayton?  
To: ham-homebrew@ucsd.edu

Ocean State Electornics 1-800-866-6626  
sells 1.5 inch full view panel meters for \$13.25 each.

They have a selection of values, including 50 uA DC.

Not as nice as surplus meters that cost someone  
\$50+ each.

groverc@gvgadg.gvg.tek.com wrote:

: I am in need of two small ( <1.75") 50uA movement meters to finish a  
: project. Since I live in the boondocks I wonder if anyone can help

: me find such items. Perhaps someone going to Dayton would be willing  
: to look for me? Any help very much appreciated.  
: By the way, I have looked in all the "regular" catalog sources  
: to no avail. I think that these are going to be swap meet items.

: 73

: Grover  
: WT6P  
--

Zack Lau KH6CP/1                    2 way QRP WAS  
                                     8 States on 10 GHz  
Internet: zlau@arrl.org    10 grids on 2304 MHz

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Date: Mon, 28 Feb 1994 20:25:28 GMT  
From: spsgate!mogate!newsgate!news@uunet.uu.net  
Subject: Comments on TAPR-2 board?  
To: ham-homebrew@ucsd.edu

Has anyone out there built a TNC from the TAPR-2 circuit board? If so, I'd be interested in hearing about it. Specifically, how difficult was it to locate parts, was it any cheaper than buying a used 1270 or other clone, any problems getting it to work?

I'm looking for a (relatively) cheap entry into the 9600bps packet world and building a TAPR TNC and adding the 9600 modem seems like one way to do it.

Any comments will be appreciated.

Thanks & 73...    Mark    AA7TA

-----  
Date: 1 Mar 94 10:52:24 GMT  
From: news-mail-gateway@ucsd.edu  
Subject: Looking for Lex...  
To: ham-homebrew@ucsd.edu

I'm looking for a Lexical Analyzer for DOS.

I haven't been able to find either a source or an executable for DOS (yeah, I know... get a \*real\* OS...)

How about a 'port of "lex"? Does anyone know where one may be found?

Thanks in advance,

<Clint>

Internet: Clint@uugate.aim.utah.edu  
Amprnet: ka7oei@uugate.wa7slg.ampr.org

"Me thinks, therefores me is..."

-----  
Date: Mon, 28 Feb 1994 20:30:00 GMT  
From: ihnp4.ucsd.edu!sdd.hp.com!col.hp.com!srngenprp!alanb@network.ucsd.edu  
Subject: Paralleling Power Diodes ?  
To: ham-homebrew@ucsd.edu

Alan Anderson (alana@u018.me.vp.com) wrote:

: >  
: >I wouldn't count on 3A with 3 diodes using that technique,  
: >but you should get something better than 1A.  
: >  
: >AL N1AL  
: >

: What would you recommend using for 3A at 4KV, I have seen some  
: 2Amp 10000 volt "double diode" bridges in Nebraska surplus. These are  
: setup for heat sink mounting. 2 in parallel ?

I would just use a series string of lower-voltage 3A diodes.

I hate to bring up the next point because, since it violates conventional wisdom, it is bound to draw some flames. But what the heck...

You don't need to put resistors in parallel when you string diodes in series.

There, I've said it.

Think about it. When you over-voltage a diode, it acts like a high-voltage Zener and clamps at its breakdown voltage. So long as the current is limited, no permanent damage occurs. Since all the diodes in the string are in series, the current through each is the same. The current will be limited to the leakage current of the lowest-leakage diode in the string, typically a few microamps. Unless you exceed the SUM of the breakdown voltages of all the diodes in the string, no catastrophic breakdown will occur.

AL N1AL

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Date: Mon, 28 Feb 1994 18:16:24 -0500  
From: titan.ksc.nasa.gov!k4dii.ksc.nasa.gov!user@ames.arpa  
Subject: Paralleling Power Diodes ?  
To: ham-homebrew@ucsd.edu

In article <1994Feb22.153935.9921@ccd.harris.com>, drs@ccd.harris.com  
(Marie-Louise DaBrusco) wrote:

> I just obtained a pot full of 1N4007 diodes. They are 1KV @ 1A. I plan on  
> using many of them for a bridge for a HV power supply. Since the supply is  
> going to put out somewhere around 4KV, I will want to series a number of  
> these guys to get enough piv for (since I am very conservative) around 8KV.  
> Since they are rated at 1A, I am thinking that I want to parallel a few of  
> these to get a good 3A rating. Anybody see any problem with paralleling 3  
> of these diodes? I realize that the forward resistance may be different for  
> them.

Doug-

It should be possible to parallel diodes the way you parallel transistors:  
put a low-value "ballast" resistor in series with each.

For your high voltage requirement, be sure there is a capacitor (around  
0.001 MicroFarad) in parallel with each set of parallel diodes, and be sure  
the capacitors have at least the same voltage rating as the diodes. This  
ensures that any voltage transient will be divided equally among the diodes  
in a string, rather than being determined by junction capacitance.

Note: Parallel resistors across each diode in a series string, serve no  
useful function. Slowly-varying voltage will divide according to the  
diode's leakage resistance, which effectively decreases as you approach its  
breakdown voltage. Further, you won't find many inexpensive, high-value  
resistors rated at 1000 volts dielectric strength! For example, an RC42, 2  
watt carbon resistor is rated at 750 volts.

73, Fred, K4DII

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Date: 28 Feb 1994 16:43:35 GMT  
From: ihnp4.ucsd.edu!agate!howland.reston.ans.net!usenet.ins.cwru.edu!  
lerc.nasa.gov!news.larc.nasa.gov!grissom.larc.nasa.gov!kludge@network.ucsd.edu  
Subject: Want to obtain a very cheap high gain antenna  
To: ham-homebrew@ucsd.edu

In article <2ks78s\$o5b@agate.berkeley.edu> rsutton@congo.EECS.Berkeley.EDU (Roy  
Allen Sutton) writes:

>  
>Has anyone a suggestion for a very cheap highly directional  
>2M antenna?  
>  
> Homemade Yagi?

Very easy to do. Get the ARRL Antenna book. You can make the things  
with 1/2" hard-drawn copper pipe from your local plumbing supply, too.

> Homemade Dish? (Do hams use dish on 2M)?

It would be possible, but it would be very, very, very large. Maybe you  
could make something Arecibo-style, hollowing out the ground in your backyard  
and mounting a dipole at the focus. Be great for EME work, anyway....  
--scott  
--

"C'est un Nagra. C'est suisse, et tres, tres precis."

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Date: Mon, 28 Feb 1994 20:44:19 GMT  
From: ihnp4.ucsd.edu!library.ucla.edu!europa.eng.gtefsd.com!  
howland.reston.ans.net!vixen.cso.uiuc.edu!sdd.hp.com!col.hp.com!srngenprp!  
alanb@network.ucsd.edu  
Subject: Want to obtain a very cheap high gain antenna  
To: ham-homebrew@ucsd.edu

Roy Allen Sutton (rsutton@congo.EECS.Berkeley.EDU) wrote:

: Has anyone a suggestion for a very cheap highly directional  
: 2M antenna?

How about a long wire? A 100-foot wire would be about 15 wavelengths  
which would give you tons of gain on the two meter band. I don't see  
how you could get much cheaper than that. Of course, it would be a  
bit hard to rotate :=)

AL N1AL

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End of Ham-Homebrew Digest V94 #47  
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